UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,106	02/27/2002	Robert Allan Unger	SNY-R4976	6776

24337   7590   10/16/2009
MILLER PATENT SERVICES
2500 DOCKERY LANE
RALEIGH, NC 27606

EXAMINER
SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
2424	

MAIL DATE	DELIVERY MODE
10/16/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 May 2009*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *6/11/09; 9/10/09*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 05/29/09 have been fully considered but they are not persuasive.

With respect to the rejection of the last office action mailed 03/20/09, Applicant discusses the prior arts of record and further argues that the prior arts of record do not teach the claims limitations and that the Examiner has over-broadened the actual disclosure of the Blatter reference and that the secondary reference, Herley does not overcome the deficiencies in Blatter (see page 11+ of Applicant's Remarks).

In response, Examiner notes Applicant's arguments, however, Examiner disagrees. Blatter teaches **Head end "HE", Broadcaster "BC", Transport System "TS" 25**; constructing a program association table (PAT) that associates programs with primary PIDs; constructing a plurality of program map tables (PMT), one for each program in the PAT (col.2, lines 38-65, col.3, lines 46-49, col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+). The HE, BC or TS-25, constructs a lookup table that maps at least one primary PID (Base PID) that identifies a portion of a program (Broadcast programs) encrypted under a first encryption system to at least one shadow PID that identifies a duplicate of the same portion of the program encrypted under a second encryption system (col.2, lines 38-65, col.3, lines 46-49, col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+); and broadcasting the PAT, the PMTs and the lookup table over the content delivery medium (col.3, lines 46-49, col.4, line 35-col.5, line 54 and col.7, line 62-col.8, line 67 and col.9, line 23-col.11,

line 1+). **Blatter teaches that the CAT holds encrypted codes of the PIDs (the Base PID and Base PID-offset value) of the program and where the TS-25 further and multiplexes the data over a communication medium to various devices (Computers, HDTV Receivers, various types storage devices, etc.) on the network. Blatter further discloses Transport System (TS) 25 (a Gateway Server or Broadcast Server), which further receives these encrypted MPEG streams decrypts that packets for presentation and further creates or generates PIDs, PAT, PMTs, CATs, etc., and further encrypts the data for stored/retrieval and further performs various processes of encrypting/decrypting of the data packets for communication and presentation on devices on the network. Blatter discloses encrypting broadcast programs two or more times, but does not clearly disclose that the same portion of the program is encrypted under a second encryption system**. However, in the same field of endeavor **Herley** disclose method and apparatus for partial encryption of content where same portion of the program is encrypted two or more times (figs.2-5, Abstract, page 1, [0010-0013] and [0020-0031]). Applicant arguments are not persuasive. The rejection using the prior arts of record is proper meets all the claims limitations, maintained as repeated below. **This office action is made final.**

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-51 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Blatter et al (5,838,873)** in view of **Herley et al (2002/0108035).**

As to claim 1, **Blatter** discloses packetized data formats for digital data storage

media and further discloses a method of providing multiple packet identifier (PID)

information for a multiple carriage content delivery system, comprising:

(Head end "HE", Broadcaster "BC", Transport System "TS" 25) Constructing a

program association table (PAT) that associates programs with primary PIDs;

constructing a plurality of program map tables (PMT), one for each program in the PAT

(col.2, lines 38-65, col.3, lines 46-49, col.4, line 35-col.5, line 54, col.8, line 16-53 and

col.9, line 23-col.10, line 1+);

(HE, BC or TS-25) Constructing a lookup table that maps at least one primary

PID (Base PID) that identifies a portion of a program (Broadcast programs) encrypted

under a first encryption system to at least one shadow PID that identifies a duplicate of

the same portion of the program encrypted under a second encryption system (col.2,

lines 38-65, col.3, lines 46-49, col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9,

line 23-col.10, line 1+); and broadcasting the PAT, the PMTs and the lookup table over

the content delivery medium (col.3, lines 46-49, col.4, line 35-col.5, line 54 and col.7,

line 62-col.8, line 67 and col.9, line 23-col.11, line 1+); note that the CAT holds

encrypted codes of the PIDs (the Base PID and Base PID-offset value of the program

and TS-25 further creates or generates PIDs, PAT, PMTs, CATs, etc., and further

encrypts the data for stored/retrieval and multiplexes the data over a communication

medium to various devices (Computers, HDTV Receivers, various types storage

devices, etc.) on the network.

Blatter discloses encrypting broadcast programs two or more times, but does not

clearly disclose that the same portion of the program is encrypted under a second

encryption system.

However, **Herley** disclose method and apparatus for partial encryption of content

where same portion of the program is encrypted two or more times (figs.2-5, Abstract,

page 1, [0010-0013] and [0020-0031]).

Hence, it would have been obvious to one of ordinary skill in the art at the time of

the invention to incorporate the teaching of Herley into the system of Blatter to provide

additional security to the broadcast content.

As to claim 2, Blatter further discloses where the lookup table is broadcast as

one or more MPEG user private data packets (col.10, lines 25-33, col.11, lines 46-57,

col.12, line 27-col.13, line 1+).

As to claim 3, Blatter further discloses where it is carried out at a cable television

system (col.2, lines 38-65 and col.3, lines 46-49, col.4, line 35).

As to claim 4, **Blatter** further discloses a method of demultiplexing a data stream

having multiple packet identifiers for a program, comprising:

Receiving (fig.1) a program association table (PAT) that associates programs with primary PIDs; receiving a program map table (PMT); receiving a lookup table relating primary PIDs to shadow PIDs (col.3, lines 46-49, col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+);

Determining (Controller 115), from the PMT and the lookup table that a program is associated with both a primary PID that identifies a portion of the program encrypted under a first encryption system and a shadow PID that identifies a duplicate of the same portion of the program encrypted under a second encryption system; and setting a PID filter to permit passage of packets having both primary and shadow PIDs (col.2, lines 38-65, col.3, lines 46-49, col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+); and broadcasting the PAT, the PMTs and the lookup table over the content delivery medium (col.3, lines 46-49, col.4, line 35-col.5, line 54 and col.7, line 62-col.8, line 67 and col.9, line 23-col.11, line 1+); note that the CAT holds encrypted codes of the PIDs (the Base PID and Base PID-offset value of the program and TS-25 further creates or generates PIDs, PAT, PMTs, CATs, etc., and further encrypts the data for stored/retrieval and multiplexes the data over a communication medium to various devices (Computers, HDTV Receivers, various types storage devices, etc.) on the network.

Blatter discloses encrypting broadcast programs two or more times, but does not clearly disclose that the same portion of the program is encrypted under a second encryption system.

However, **Herley** disclose method and apparatus for partial encryption of content

where same portion of the program is encrypted two or more times (figs.2-5, Abstract,

page 1, [0010-0013] and [0020-0031]).

Hence, it would have been obvious to one of ordinary skill in the art at the time of

the invention to incorporate the teaching of Herley into the system of Blatter to provide

additional security to the broadcast content..

As to claim 5, Blatter further discloses further comprising establishing a

demultiplexer output path for both the primary PID and the shadow PID (col.4, line 35-

col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+)

As to claim 6, Blatter further discloses where the lookup table contains a shadow

PID for a shadow entitlement control message (ECM), and further comprising initializing

a decrypter using the shadow ECM (col.4, line 35-col.5, line 54, col.8, line 16-53 and

col.9, line 23-col.10, line 1+).

As to claim 7, Blatter further discloses where it is carried out in a television set-top

box (fig.1).

As to claim 8, **Blatter** further discloses a method of constructing a stream of data

packets having related primary and shadow packet identifiers (PIDs), the packets

having headers and payloads, comprising:

A micro computer (Controller 'C' 115); a first primary packet buffer and a second

primary packet buffer (Buffer 60);

A demultiplexer, receiving an incoming data stream having packets with the

related primary and shadow PIDs; where the related primary and shadow PIDs each

identify duplicated portions of a program encrypted under a first encryption system and a second encryption system respectively; providing a stream of packets having the primary PID to a first buffer (Buffer 60) col.3, lines 46-49, col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+);

Detecting (C-115) a packet having the shadow PID and a shadow payload in the incoming data stream; switching the stream of packets having the primary PID to a second buffer (Buffer 60) in response to the detecting; and searching (C-115) a last packet stored in the first buffer for a packet corresponding to the packet having the shadow PID (col.3, lines 46-49, col.4, line 35-col.5, line 54 and col.7, line 62-col.8, line 67 and col.9, line 23-col.11, line 1+); note that the CAT holds encrypted codes of the PIDs (the Base PID and Base PID-offset value of the program and TS-25 further creates or generates PIDs, PAT, PMTs, CATs, etc., and further encrypts the data for stored/retrieval and multiplexes the data over a communication medium to various devices (Computers, HDTV Receivers, various types storage devices, etc.) on the network.

Blatter discloses encrypting broadcast programs two or more times, but does not clearly disclose that the same portion of the program is encrypted under a second encryption system.

However, **Herley** disclose method and apparatus for partial encryption of content where same portion of the program is encrypted two or more times (figs.2-5, Abstract, page 1, [0010-0013] and [0020-0031]).

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Herley into the system of Blatter to provide additional security to the broadcast content.

As to claim 9, Blatter further discloses generating an interrupt as a result of detecting the packet having the shadow PID (col.8, line 16-53 and col.9, line 23-col.10, line 1+).

As to claim 10, Blatter further discloses switching is carried out in response to the interrupt (col.8, line 16-53 and col.9, line 23-col.10, line 1+).

As to claim 11, Blatter further discloses generating a packet having the primary PID and the shadow payload (col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+).

As to claim 12, Blatter further discloses generating comprises substituting the primary PID for the shadow PID into the packet having the shadow PID (col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+).

As to claim 13, Blatter further discloses the generating comprises substituting the shadow payload into the matching packet (col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+).

As to claim 14, Blatter further discloses where the corresponding packets have the matching sequence number (col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+).

As to claim 15, Blatter further discloses where the corresponding packets are encrypted under two different encryption techniques (col.4, line 35-col.5, line 54, col.8, line 16-53 and col.9, line 23-col.10, line 1+).

As to claim 16, the claimed "A storage medium storing instructions which, when executed on a programmed processor..." is met as previously discussed with respect to claim 8.

As to claim 17, the claimed "A method of constructing a stream of data packets having primary and shadow packet identifiers (PIDs), the packets having headers and payloads..." is composed of the same structural elements that were discussed with respect to the rejection of claim 8.

Claim 18 is met as previously discussed with respect to claim 9.

Claim 19 is met as previously discussed with respect to claim 10.

Claim 20 is met as previously discussed with respect to claim 11.

Claim 21 is met as previously discussed with respect to claim 12.

Claim 22 is met as previously discussed with respect to claim 13.

Claim 23 is met as previously discussed with respect to claim 14.

Claim 24 is met as previously discussed with respect to claim 15.

Claim 25 is met as previously discussed with respect to claim 16.

As to claim 26, the claimed "A method of constructing a stream of data packets having primary and shadow packet identifiers (PIDs), the packets having headers and payloads...." is composed of the same structural elements that were discussed with

respect to the rejection of claim 8.

Claim 27 is met as previously discussed with respect to claim 9.

Claim 28 is met as previously discussed with respect to claim 10.

Claim 29 is met as previously discussed with respect to claim 11.

Claim 30 is met as previously discussed with respect to claim 12.

Claim 31 is met as previously discussed with respect to claim 13.

Claim 32 is met as previously discussed with respect to claim 14.

Claim 33 is met as previously discussed with respect to claim 15.

Claim 34 is met as previously discussed with respect to claim 16.

As to claim 35 "A method of constructing a stream of data packets having

primary and shadow packet identifiers (PIDs), the packets having headers and

payloads..." is composed of the same structural elements that were discussed with

respect to the rejection of claim 8.

Claim 36 is met as previously discussed with respect to claim 9.

Claim 37 is met as previously discussed with respect to claim 10.

Claim 38 is met as previously discussed with respect to claim 11.

Claim 39 is met as previously discussed with respect to claim 12.

Claim 40 is met as previously discussed with respect to claim 13.

Claim 41 is met as previously discussed with respect to claim 14.

Claim 42 is met as previously discussed with respect to claim 15.

Claim 43 is met as previously discussed with respect to claim 16.

As to claim 44, the claimed "A digital receiver apparatus that

reconstututes/reconstructs a stream of data packets..." is composed of the same

structural elements that were discussed with respect to the rejection of claim 8.

Claim 45 is met as previously discussed with respect to claim 11.

Claim 46 is met as previously discussed with respect to claim 12.

Claim 47 is met as previously discussed with respect to claim 13.

Claim 48 is met as previously discussed with respect to claim 14.

Claim 49 is met as previously discussed with respect to claim 15.

As to claim 50, Blatter further discloses where the program means comprises

means for reading a DMA register (col.5, line 47-col.6, line 53).

Claim 51 is met as previously discussed with respect to claim 7.

Conclusion

4.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension

of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANNAN Q. SHANG** whose telephone number is **(571)272-7355**. The examiner can normally be reached on **700am-400pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelley** can be reached on **571-272-7331**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC) at 866-217-9197 (toll-free)**. If you would like assistance from a **USPTO Customer Service Representative or access** to the automated information system, **call 800-786-9199 (IN USA OR CANADA) or 571-272-1000**.

/Annan Q Shang/
Primary Examiner, Art Unit 2424

Annan Q Shang